

REMARKS

The Office Action mailed January 3, 2007 has been carefully considered and the following response prepared. Claims 14-26, 29-37 and 40 are pending in the application. Claims 18, 20-26, 29-37 and 40 are allowed. New claim 41 has been added. No new matter has been added.

Applicants' representative Liza D. Hohenschutz would like to thank Examiner Christian Fronda for the very courteous and helpful telephone conference on March 23, 2007 during which the rejection of claims 14-17 as obvious under 35 USC 103 was discussed. Details of the interview are set out in Applicants' response to the rejection.

At page 2 of the Office Action, claims 14-17 were rejected as obvious under 35 USC 103 as obvious in view of Keilhauer et al., J. Bacteriol 175(17): 5595-5603, 1993 and Reuter, "Genetic and physiological analysis of the formation of pantothenate and valine in *Corynebacterium glutamicum*," Berichte des Forschungszentrums Juelich (Jule-3606), pp.1-115 (1998). The Examiner asserted that it would have been obvious to one of ordinary skill in the art to modify the transformed *Corynebacterium glutamicum* strain taught by Keilhauer et al. such that the panB, panC and ilvA genes are deleted by recombinant molecular biology techniques in order to make a transformed *Corynebacterium glutamicum* strain that will be able to overproduce L-valine. The Examiner also indicated that amending the claims to recite (1) a microorganism transformed with a nucleotide sequence encoding dihydroxy acid dehydratase (ilvD); or (2) a microorganism transformed with ilvD and nucleotide sequences encoding acetohydroxy acid synthase and isomeroreductase (ilvBNC), wherein the microorganism is a *Corynebacterium* species that overproduces L-valine compared to an untransformed *Corynebacterium* species may overcome the rejection.

Applicants traverse this rejection. During the telephone interview on March 23, 2007, Examiner Fronda advised Applicants' representative that the claim amendments suggested in the Office Action to overcome the rejection of claim 14-17 as obvious referred to amending claim 14 such that the claim required transformation of the microorganism with ilvD or both ilvD and ilvBNC. New claim 41 directed to the

microorganism of claim 14, wherein the microorganism is transformed with a nucleotide sequence encoding *ilvD* or nucleotide sequences encoding both *ilvD* and *ilvBNC* has been added. Applicants believe claims 14-17 are not obvious in view of the cited references for the reasons discussed below and have not amended claim 14.

Keilhauer et al. discloses studies on the *ilv* operon of *Corynebacterium glutamicum* to determine the structure and organization of the operon. In these studies, a 4,705-bp DNA fragment from *Corynebacterium glutamicum* known to code for acetohydroxy synthetase (*ilvBN*) and isomeroreductase (*ilvC*) was sequenced and analyzed. *In vivo* studies were done with wild type *C. glutamicum* transformed with plasmids containing various portions of the *C. glutamicum* DNA fragment.

Applicants respectfully submit that Reuter is not prior art to the present application. In Applicants' response filed September 7, 2004, Applicants submitted information showing that Reuter became publicly available after February 26, 1999. Applicants submitted a letter from A. Otto of Forschungszentrum Julich GmbH to Dr. Ute Kratscher which states that Juel-3606, the Reuter reference, was published after February 26, 1999. The present application claims priority from German application DE 199 07 576.0 filed February 22, 1999. The priority date of the present application is before the publication date of Reuter; hence, Reuter is not prior art with respect to the present application. Rejection of the claims in view of Reuter was withdrawn in the Office Action mailed December 22, 2004.

Claims 14-17 are not obvious in view of Keilhauer et al. There is no disclosure or suggestion in Keilhauer et al. of the claimed microorganisms, in which the activity of one or more enzymes that are specifically involved in the synthesis of D-pantothenate is reduced or eliminated, wherein the one or more enzymes are selected from the group consisting of ketopantoate hydroxymethyl transferase (*panB*), pantothenate ligase (*panC*), ketopantoic acid reductase (*panE*) and aspartate decarboxylase (*panD*) and the activity of the one or more enzymes is reduced or eliminated as a result of deletion of all or a part of the nucleotide sequence encoding the enzyme in the microorganism. New claim 41, directed to the microorganism of claim 14 transformed with a nucleotide sequence

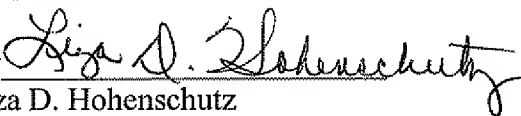
encoding ilvD or nucleotide sequences encoding both ilvD and ilvBNC is also not obvious in view of Keilhauer et al. for the same reason. Additionally, Keilhauer et al. does not disclose or suggest microorganisms transformed with ilvD or both ilvD and ilvBNC.

Withdrawal of this section 103 rejection is respectfully requested.

In view of the above, the present application is believed to be in a condition for allowance. Reconsideration of the application is requested and an early Notice of Allowance is earnestly solicited.

Dated: May 3, 2007

Respectfully submitted,

By 
Liza D. Hohenschutz

Registration No.: 33,712
CONNOLLY BOVE LODGE & HUTZ LLP
1007 North Orange Street
P.O. Box 2207
Wilmington, Delaware 19899
Attorney for Applicant

(302) 658-9141
(302) 658-5614 (Fax)

LDH/alh/495944